

POSTERS

Project Area A: Methodological developments

Project A01

Hendrik Sielaff, Ilka Starke, Mykhailo Ilchenko, Maria Dienerowitz, Sonja Rabe, Thomas Heitkamp & Michael Börsch

Confocal single-molecule FLIM-FRET analysis of gated receptors and transporters

Project A02

Ludovic Roussille & Volker Deckert

Chemical investigation at nanometer scale of biosamples using AFM-TERS approach

Project A03

Shang Yang, Jing Yu, Shiqiang Gao & Georg Nagel

Improved optogenetic tools, engineered from photoreceptors

Project A04

Ralph Götz, Alexander Kuhlemann, Patrick Eiring, Sebastian Letschert, Andreas Kurz, Sören Doose, Patrick Then, Rainer Heintzmann & Markus Sauer

Multidimensional super-resolution imaging of membrane receptors

Project A05

Maik Otte, Marco Lelle, Ralf Schmauder, Jana Schirmeyer, Susanne Thon, Andrea Schweinitz & Klaus Benndorf

Relating the binding of single ligands to activation in single HCN and CNG channels

Sabine Hummert, Jan Münch, Nisa Wongsamitkul, Vasilica Nache, Thomas Eick, Eckhard Schulz, Ralf Schmauder, Jana Schirmeyer, Thomas Zimmer & Klaus Benndorf

Global fit strategies in Markov modeling

Project Area B: Ligand gated ion channel**Project B01**

Kathrin Groeneveld, Sophie Wucherpfennig, Teresa Langenstück,
Christoph Biskup & Vasilica Nache

Elucidating assembly, ligand binding and gating of retinal CNG channels

Project B02

Franziska Neubert, Lars Schmidl, Christian Werner, Holger Haselmann,
Sören Doose & Christian Geis

Investigating humoral autoimmunity against the NMDA-receptor NR1 subunit by super-resolution fluorescence microscopy: effects on synapse integrity and function

Project B03

Jürgen Graf, Tom Floßmann, Chuanqiang Zhang, Knut Holthoff & Knut Kirmse

Interaction of GABAA-receptor function and network activity in the developing hippocampus

Project B04

Sina Wäldchen, Divya Sachidanandan, Markus Sauer & Robert Kittel

Activity-induced ionotropic glutamate receptor dynamics at super-resolution *in vivo*

Project B05

Jessica Tröger, Christian Karras, Britta Qualmann & Rainer Heintzmann

Enlightening inhibitory neurotransmitter receptor organization and dynamics applying high-end microscopy

Project B06

Martin Pauli, Mila M. Paul, Sven Proppert, Marzieh Sharifi, Felix Repp,
Philipp Kollmannsberger, Markus Sauer, Manfred Heckmann & Anna-Leena Sirén

Functional plasticity of glutamate receptor channels on hippocampal mossy fiber terminals

Project B07

Abhilasha Ladha, Vera Martos, Andrew J.R. Plested & Jana Kusch

A fluorescent agonist of the muscle-type nicotinic acetylcholine receptor

Project B08

Michael A. Geringer, Julian Lehmann, Dietmar Geiger & Rainer Hedrich

Dynamic interactions within Arabidopsis guard cell hormone-receptor anion-channel complex

Project Area C: GPCR's and other membrane receptors**Project C01**

Marie-Lise Jobin, Sana Siddig, Titiwat Sungkaworn & Davide Calebiro

Spatial organization and dynamics of GPCR signaling as revealed by single-molecule and super-resolution microscopy

Project C02

Nelly Rüttiger, Nicole Ziegler, Ulrike Zabel, Anette Stumpf & Carsten Hoffmann

Positive allosteric modulators increase ligand residence time at the adenosine A1 receptor

Project C03

Steffen Altrichter, Gerti Beliu, Markus Sauer, Carsten Hoffmann, Nicole Scholz & Tobias Langenhan

Molecular mechanics of Adhesion class G protein-coupled receptor signaling

Project C04

Taulant Kukaj, Ralf Schmauder, Ulrike Zabel, Martin J. Lohse & Klaus Benndorf

Activation kinetics of metabotropic glutamate receptor 1 investigated by piezo-controlled concentration jumps

Project C05

Elke Miess, Ralph Steinborn, Andrea Kliewer, Nadja Mösslein, Yunshi Yang, Martin Göldner, Julia G. Ruland, Moritz Bünemann, Cornelius Krasel & Stefan Schulz

Differential recruitment of G protein-coupled receptor kinases and β -arrestins to activated μ -opioid receptors

Project C06

Mike Friedrich, Jan-Hagen Krohn, Julia Wagner, Martin J. Lohse & Katrin G. Heinze

Revealing fast dynamics of G-protein coupled receptors with fluorescence correlation spectroscopy

Project C07

Jorge Martin Machado, Lisa Krebes, Sören Doose, Viacheslav O. Nikolaev, Carsten Hoffmann, Erick Miranda Laferte & Michaela Kuhn

A FRET-FIAsH approach to study atrial natriuretic peptide-induced conformational changes of the cGMP-producing GC-A receptor

Project area Z: Core project**Project Z02**

Frank Taubert, Daniel Walther, Sheeba Samuel, Andreas Henkel, H. Martin Bücken & Birgitta König-Ries

Integrative data management and processing**Additional Posters**

Ralf Schmauder, Thomas Eick, Elmar Herbst, Günter Mayer & Klaus Benndorf
Fast microfluidic based 30-barrel solution applicator for electrophysiology

Nicole Koch, Dennis Koch, Sarah Krüger, Victor Sabanov, Tariq Ahmed, Dirk Montag, Michael M. Kessels, Detlef Balschun & Britta Qualmann

LTD and LTP expression, GluR1 surface organisation and internalisation require syndapin I

Nadja Mößlein

Role of Phosphoserine and Phosphothreonine for binding of arrestin to G-protein-coupled receptors

Volker Jelinek

Role of Galpha C-terminal helix for binding affinity to muscarinic receptors

Michael Kurz

Thromboxane receptor shows voltage dependence

Olga Prokopets & Moritz Bünemann

Imaging dynamics of receptor - G protein complexes to determine coupling efficiency and G protein subtype selectivity

Pragya Goel, Xiling Li & Dion Dickman

Disparate postsynaptic induction mechanisms ultimately converge to drive the retrograde enhancement of presynaptic efficacy

Natalia Wolf, Tim Walter, Lena Collenburg, Sebastian Letschert, Anne Burgert, Sibylle Schneider-Schaulies, Markus Sauer & Jürgen Seibel

Compounds for super-resolution fluorescence imaging